QUIZ NAVIGATION

1 2 3 4 5
6 7 8 9 10

Show one page at a time

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Started on	Friday, 11 October 2024, 5:11 PM
State	Finished
Completed on	Friday, 11 October 2024, 5:22 PM
Time taken	10 mins 56 secs
Grade	**6.00** out of 10.00 (**60%**)

Question 1

ID: 50036

Correct

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BC is a 42-year-old woman with a history of feeling overwhelmed by stress and feeling completely exhausted. Her stress over the past two months has caused her to completely withdraw from her work and family. BC's physician diagnosed her with generalized anxiety disorder. BC is otherwise healthy and does not have any medical conditions. She drinks 3cups of coffee a day. She tried taking a vitamin B12 supplement 1000 mcg daily, but she did not find that it helped with her tiredness so she stopped 2 weeks ago. BC does not take any other medications. BC owns her own landscaping company with her husband; however, two months ago her husband asked for a divorce and they have not yet determined what this means for the landscaping business.

BC is curious about the treatment options for her generalized anxiety disorder. She would like to avoid using medications if possible as she knows someone who gained 10 lbs after starting on anti-anxiety medication.

Which of the following statements is **FALSE** regarding nonpharmacologic treatments for BC?

Select one:

- BC should decrease her caffeine consumption ✖
- BC should use relaxation techniques and find a support system ✖
- BC should participate in Cognitive Behavioural Therapy (CBT) ✖
- BC should perform resistance exercises 1-2 times a week ✔

Rose Wang (ID:113212) this answer is correct. Aerobic, not resistance, exercises performed a few times per week may help to reduce some symptoms of GAD.

Correct

Marks for this submission: 1.00/1.00.

TOPIC: Anxiety and Related Disorders

LEARNING OBJECTIVE:

To understand the role of non-pharmacologic treatment for anxiety disorders.

BACKGROUND:

Non-pharmacological treatment options should be offered as an initial therapy or as an adjunctive treatment to pharmacological treatments if possible. In the case of anxiety disorders, non-pharmacological options include the use of stress management and relaxation techniques (e.g. finding a strong support system), as well as formal psychological treatments (i.e. Cognitive Behavioural Therapy (CBT)). The use of caffeine and other stimulants should also be minimized as they can enhance the symptoms of anxiety. Aerobic exercise a few times per week may also be recommended, as this may help to reduce some anxiety symptoms.

CBT is a structured series of individual or group-format psychotherapy sessions that helps patients to identify the thoughts, behaviours and attitudes that maintain their emotional disorders, including anxiety. Once identified, the treatment aims to restructure negative thoughts, behaviours and attitudes through cognitive and behavioural techniques. Examples of treatment strategies include:

- Exposure
  - Encouraging patients to face fears
  - Learning corrective information through experience
  - Inducing the extinction of fear through repeated exposure
  - Encouraging successful coping to enhance self-efficacy
- Safety response inhibition
  - Restriction of usual anxiety-reducing behaviours (e.g., escape, need for reassurance)
  - Decreasing negative reinforcement
  - Coping with anxiety without using anxiety-reducing behaviour enhances self-efficacy
- Cognitive strategies
  - Cognitive restructuring, behavioural experiments, and related strategies to target patients' exaggerated perception of danger (e.g., fear of negative evaluation in SAD)
  - Providing corrective information regarding the level of threat
  - Can also target self-efficacy beliefs
- Arousal management

- Introducing relaxation and breathing control skills to help patients control increased anxiety levels

- Surrender of safety signals
  - Relinquishing safety signals (e.g., presence of a companion, knowledge of the location of the nearest toilet)
  - Learning adaptive self-efficacy beliefs

RATIONALE:

Correct Answer:

- **BC should perform resistance exercises 1-2 times a week** - Aerobic, not resistance, exercises performed a few times per week may help to reduce some symptoms of GAD.

Incorrect Answers:

- **BC should decrease her caffeine consumption** - Caffeine can enhance the symptoms of anxiety. Caffeine consumption should be slowly decreased to avoid withdrawal anxiety.
- **BC should use relaxation techniques and find a support system** - Using stress management, relaxation techniques, and finding a support system can help reduce the symptoms of anxiety.
- **BC should participate in Cognitive Behavioural Therapy (CBT)** - Cognitive Behavioural Therapy (CBT) is a first-line non-pharmacological option for GAD since it is very effective.

TAKEAWAY/KEY POINTS:

Non-pharmacologic therapies are a mainstay of treatment for anxiety and related disorders. Such therapies include CBT, stress management, regular aerobic exercise, and the elimination of offending substances.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P et al. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. *BMC Psychiatry* 2014;14(Suppl 1):S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: BC should perform resistance exercises 1-2 times a week

Question 2
ID: 50037
Incorrect
Flag question
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QL is an 89-year-old female who is a regular patient at your clinic. She was recently diagnosed with Generalized Anxiety Disorder (GAD) and will be started on pharmacotherapy. Her medical conditions include rheumatoid arthritis and mild dementia. She has no known allergies and her current medications include hydroxychloroquine 400 mg PO daily, donepezil 5 mg PO daily, aspirin 81 mg PO daily, and vitamin D3 1000 units PO daily.

Which of the following first-line pharmacological treatment options is **LEAST** appropriate for QL?

Select one:

- Venlafaxine ✖ *Rose Wang (ID:113212) this answer is incorrect. Venlafaxine is an appropriate first-line treatment option for QL.*
- Escitalopram ✔
- Duloxetine ✖
- Sertraline ✖

Incorrect
Marks for this submission: 0.00/1.00.

TOPIC: Anxiety and related disorders

LEARNING OBJECTIVE:

To identify the adverse effects of citalopram and escitalopram when used for anxiety and related disorders.

BACKGROUND:

The key features of Generalized Anxiety Disorder (GAD) include excessive, difficult-to-control anxiety and worry about multiple events or activities, accompanied by symptoms such as restlessness/feeling on edge or muscle tension on more days than not for 6 months or more. The lifetime prevalence of GAD is approximately 6%, and is more frequent in Caucasians compared to other groups. GAD is frequently underdiagnosed and undertreated. If it is present with a comorbid medical condition, the symptoms, economic impact, and degree of disability in these patients likely to be more severe. GAD can have a negative impact on daily functioning and can place an economic burden on individuals and society in terms of missed work days and health care costs. Patients with GAD are also at an increased risk of developing a comorbid psychiatric disorder such as MDD, other anxiety and related disorders, pain syndromes, hypertension, cardiovascular conditions, and gastric conditions. SSRI treatment options for GAD include citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine, and sertraline. SNRI treatment options for GAD include duloxetine and venlafaxine. SSRIs and SNRIs have similar side effects associated with their use, including headache, gastrointestinal (GI) complaints, CNS (Central Nervous System) side effects (e.g. insomnia, and drowsiness), sexual dysfunction, fatigue, and weight gain. Among the SSRI drug class, paroxetine is associated with the greatest amount of weight gain and anticholinergic effects. Sexual

dysfunction for both SNRIs and SSRIs persists throughout drug therapy whereas GI and CNS side effects wear off after a few weeks of drug therapy. An important consideration with these medications is the increased risk of suicidal ideation in children and adolescents. It is important to ensure there is careful monitoring for evidence of self-harming or suicidal thoughts in pediatric and adult patients on these medications. In addition, citalopram and escitalopram have the greatest risk among the SSRI drug class of causing QT prolongation. Other risk factors for QT prolongation include female gender, elderly, bradycardia, electrolyte abnormalities, and use of other QT-prolonging drugs such as ondansetron, domperidone, donepezil, azole antifungals, hydroxychloroquine, and many others. Moreover, SNRIs are associated with high blood pressure, especially at elevated doses. Consider alternative options in patients with uncontrolled hypertension. The use of SSRIs and SNRIs has been associated with an increased risk of upper GI bleeding, especially when used in combination with Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), antiplatelets, and anticoagulants. In addition, patients who have used antidepressants for a minimum of 6 weeks are at risk of antidepressant discontinuation syndrome if the antidepressant is abruptly discontinued. This discontinuation syndrome can present with flu-like symptoms, insomnia, nausea, imbalance, sensory disturbances, and hyperarousal. After a trial of one SSRI or SNRI for 6-8 weeks, patients should be reassessed for symptomatic improvement. If a patient presents with some improvement, the clinician should ensure that the dose is optimized, after which an adjunctive therapy may be added on (antipsychotic or anticonvulsant). However, if the patient presents with no clinical improvement, they should be switched to another SSRI or SNRI.

RATIONALE:

Correct Answer:

- **Escitalopram has a risk of QT prolongation in patients with other risk factors (e.g. female gender, advanced age, use of hydroxychloroquine, and use of donepezil)** - Escitalopram and citalopram are associated with QT prolongation and should be avoided in patients with multiple risk factors for QT prolongation.

Incorrect Answers:

- **Venlafaxine is an appropriate first-line treatment option for GAD** - This statement is incorrect as it does not address the specific question about QT prolongation risks associated with escitalopram.
- **Duloxetine is an appropriate first-line treatment option for GAD** - This statement is incorrect as it does not address the specific question about QT prolongation risks associated with escitalopram.
- **Sertraline is an appropriate first-line treatment option for GAD** - This statement is incorrect as it does not address the specific question about QT prolongation risks associated with escitalopram.

TAKEAWAY/KEY POINTS:

Escitalopram and citalopram are associated with QT prolongation and should be avoided in patients with multiple risk factors for QT prolongation.

REFERENCES:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. *BMC Psychiatry*. 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Escitalopram

Question 3
ID: 50038
Correct
Flag question
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GB is an 85-year-old female visiting her physician for her annual checkup. During the checkup, GB explains that she has been worrying more than usual and the worrying seems to consume her mind. GB explains that this worry has been going on for almost a year. Based on the symptoms, GB's physician has diagnosed her with Generalized Anxiety Disorder (GAD). GB's past medical history is significant for congestive heart failure and mild dementia. GB's medications include furosemide 20 mg daily, bisoprolol 2.5 mg daily, ramipril 5 mg BID, and cyanocobalamin 1000 mcg daily. GB's sister was diagnosed with anxiety disorder when she was 45 years old and GB's mother was diagnosed with panic disorder when she was in her 20s.

All of the following are risk factors GB has for being diagnosed with GAD **EXCEPT**:

Select one:

- Having heart failure and dementia ✖
- Having a family history of generalized anxiety disorder and panic disorder ✖
- Advanced age ✔ *Rose Wang (ID:113212) this answer is correct. Advanced age is not a known risk factor for developing anxiety disorders.*
- Female gender ✖

Correct
Marks for this submission: 1.00/1.00.

TOPIC: Anxiety and Related Disorders

LEARNING OBJECTIVE:

To identify the risk factors for developing anxiety and related disorders.

BACKGROUND:

Having an anxiety disorder consists of having persistent, severe feelings of anxiety that lead to irrational fears. These feelings can then hinder a person's day-to-day functioning. Anxiety disorders are among the most common psychiatric illnesses with a lifetime prevalence as high as 31%. An anxiety disorder may present as an isolated diagnosis or in association with comorbid mood disorders, but they are often underdiagnosed and undertreated. In general, women are more likely than men to suffer from anxiety disorders. Other risk factors that may contribute to the development of an anxiety disorder include: Family or personal history of anxiety or mood disorders, Personal history of trauma, Isolation or loneliness, Low level of education, Absence of parental figures or overprotection, Chronic illnesses such as cardiovascular disease or diabetes. In terms of age of onset, separation anxiety disorders and phobias are more likely to appear earlier in childhood years (i.e. between 7 and 14 years of age), while panic disorders and generalized anxiety disorders are more likely to appear in the later years of life (i.e. between 25 and 50 years of age). In addition, anxiety symptoms can present secondary to other medical conditions, or from substance or medication use disorders. Medical conditions that may lead to anxiety symptoms include, but are not limited to: Cardiovascular conditions (e.g. congestive heart failure, hypertension, ischemic heart disease), Endocrine and metabolic conditions (e.g. diabetes, hyperthyroidism, vitamin B12 or folate deficiencies), Gastrointestinal conditions (e.g. Crohn's disease, irritable bowel syndrome, ulcerative colitis), Neurologic conditions (e.g. migraine, seizures, stroke, chronic pain), Respiratory conditions (e.g. asthma, chronic obstructive pulmonary disease, pneumonia). If the medical condition is controlled, the patient's anxiety symptoms may subside. However, patients may experience anxiety and distress regardless of whether their condition is controlled as having the condition itself may cause anxiety. Substances and medications can lead to anxiety symptoms as a result of their mechanism of action or when withdrawn. Classes of medications and substances that may lead to anxiety symptoms include, but are not limited to: Anticonvulsants (e.g. carbamazepine, phenytoin): anxiety symptoms may occur with abrupt discontinuation resulting in withdrawal, Antidepressants (e.g. bupropion, SSRIs, SNRIs): anxiety symptoms as an adverse effect are normally transient when drug therapy is initiated or when the dose is increased, and will likely subside after a few weeks of use; symptoms may also occur upon abrupt discontinuation (resulting in withdrawal) if the patient has been on the medication for a minimum of 6 weeks, Antihypertensives (e.g. clonidine, felodipine): anxiety symptoms may occur with discontinuation of anti-hypertensives, as increased blood pressure can trigger anxiety symptoms, Antibiotics (e.g. quinolones, isoniazid): fluoroquinolones and isoniazid have been shown to induce dose-dependent neuroexcitatory effects that may lead to mental status changes (including the development of anxiety) with toxic levels, Bronchodilators (e.g. albuterol, salbutamol, theophylline): anxiety symptoms may result from medication use; symptoms may increase with higher doses, Corticosteroids (e.g. prednisone): anxiety, agitation, and insomnia may result from medication use; patients should be advised to take the medication upon awakening, Dopamine agonists (e.g. amantadine, levodopa): anxiety symptoms may result from medication use; symptoms may increase with higher doses, Herbals (e.g. ephedra and ginseng): anxiety symptoms may result from medication use; symptoms may increase with higher doses, Illicit substances (e.g. ecstasy, marijuana): anxiety symptoms may be caused as an adverse effect of these substances, or as a symptom of withdrawal; symptoms may increase with higher doses, Nonsteroidal anti-inflammatory drugs (e.g. ibuprofen, indomethacin): anxiety symptoms may result from medication use, Stimulants (e.g. amphetamines, caffeine, cocaine, nicotine): anxiety symptoms may result from medication use; or as a symptom of withdrawal; symptoms may increase with higher doses, especially in toxicity, Sympathomimetics (e.g. pseudoephedrine, phenylephrine): anxiety symptoms may result from medication use; symptoms may increase with higher doses, Thyroid hormones (e.g. levothyroxine): anxiety symptoms may result from medication use; symptoms can be pronounced in toxicity (i.e. thyrotoxicosis). Anxiety symptoms may also occur as a result of experiencing withdrawal from certain medications. Examples of medications that can lead to withdrawal symptoms include antidepressants and benzodiazepines (BZDs). Therefore, it is important to counsel on the importance of adhering to the prescribed treatment and to consult healthcare providers before discontinuing any medications.

RATIONALE:

Correct Answer:

- **Advanced age** - Age is not a known risk factor for developing anxiety disorders.

Incorrect Answers:

- **Having heart failure and dementia** - Having chronic medical conditions increases the risk of anxiety and anxiety-related disorders.
- **Having a family history of generalized anxiety disorder and panic disorder** - A family history of anxiety or mood disorders increases the risk of developing anxiety and related disorders.
- **Female gender** - Females are at a higher risk than males for developing anxiety disorders.

TAKEAWAY/KEY POINTS:

Risk factors that increase the chance of developing anxiety and related disorders include having comorbid medical conditions, having a family history of anxiety or mood disorders, and being female.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. *BMC Psychiatry*. 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Advanced age

Question 4
ID: 50040
Correct
Flag question
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Which of the following is **NOT** a goal of therapy for the treatment of anxiety and related disorders?

Select one:

- Eliminate or decrease anxiety-based disability ✖
- Minimize the duration of ✔

Rose Wang (ID:113212) this answer is correct. Minimizing the duration of medication therapy is not a goal of therapy for anxiety and related

medication therapy

disorders.

- Prevent the recurrence of anxiety ✖
- Eliminate or decrease the symptoms of anxiety ✖

Correct

Marks for this submission: 1.00/1.00.

TOPIC: Anxiety and related disorders

LEARNING OBJECTIVE:

Understand the goals of therapy for treating anxiety and related disorders.

BACKGROUND:

The state of anxiety is a natural, transient, and adaptive reaction to real or perceived danger or stressful situations. However, when a person experiences irrational fears and possesses persistent and severe symptoms of anxiety to the point of impaired daily functioning and decreased quality of life, steps should be taken to properly diagnose and treat such symptoms. There are many different anxiety disorders, each with its own diagnostic criteria. Anxiety disorders include:

- Separation anxiety disorder
- Selective mutism
- Specific phobias
- Social anxiety disorder or Social Phobia (SP)
- Panic Disorder (PD)
- Agoraphobia
- Generalized Anxiety Disorder (GAD)
- Anxiety disorder due to another medical condition
- Substance/medication-induced anxiety disorder
- Other specified anxiety disorder
- Unspecified anxiety disorder

Although the pathophysiology of anxiety disorders can't be attributed to one single cause, there are many theories and associations that can describe the key neurotransmitters and brain areas involved with their development. The neurotransmitters thought to be involved in the pathophysiology of anxiety include norepinephrine (NE), serotonin (5-HT), gamma-aminobutyric acid (GABA), and dopamine. The goals of therapy for the treatment of anxiety disorder are to:

- Eliminate or reduce symptomatic anxiety
- Eliminate or reduce anxiety-based disability
- Facilitate complete remission of symptoms and functional recovery
- Minimize side effects associated with drug therapy
- Prevent recurrences of anxiety
- Treat comorbid conditions

RATIONALE:

Correct Answer:

- **Minimizing the duration of medication therapy** - Minimizing the duration of medication therapy is not a goal of therapy for anxiety and related disorders.

Incorrect Answers:

- **Eliminating or decreasing anxiety-based disability** - Eliminating or decreasing anxiety-based disability is a goal of therapy for anxiety and related disorders.
- **Preventing the recurrence of anxiety** - Preventing the recurrence of anxiety is a goal of therapy for anxiety and related disorders.
- **Eliminating or decreasing the symptoms of anxiety** - Eliminating or decreasing the symptoms of anxiety is a goal of therapy for anxiety and related disorders.

TAKEAWAY/KEY POINTS:

The goals of therapy for treating anxiety and related disorders include eliminating or decreasing symptomatic anxiety and anxiety-based disability, facilitating remission and functional recovery from symptoms, minimizing the side effects of therapy, preventing recurrence of anxiety, and treating comorbid conditions.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress, and obsessive-compulsive disorders. *BMC*

Psychiatry. 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.

[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Minimize the duration of medication therapy

Question 5

ID: 50042

Correct

Flag question

Send Feedback

WR is a 28-year-old female who is 3 months pregnant with her first child. She has a history of Generalised Anxiety Disorder (GAD) for the past 10 years but has been able to manage the symptoms using Cognitive Behavioural Therapy (CBT) and self-care strategies. However, since becoming pregnant, WR has found that her symptoms of anxiety became more severe and it is increasingly difficult to manage them using her usual techniques. Today, she is seeking further treatment for her condition and is open to trying pharmacotherapy. WR is currently not on any medications, she has no allergies, and her only known medical condition is GAD x 10 years.

All of the following treatment options would be appropriate to recommend for WR **EXCEPT:**

Select one:

- Sertraline ✖
- Escitalopram ✖
- Paroxetine ✔ — *Rose Wang (ID: 113212) this answer is correct. Paroxetine should be avoided in pregnancy due to the risk of congenital cardiac malformations in infants.*
- Citalopram ✖

Correct

Marks for this submission: 1.00/1.00.

TOPIC: Anxiety and Related Disorders

LEARNING OBJECTIVE:

To identify safe and effective treatment options for GAD in patients who are pregnant.

BACKGROUND:

Anxiety disorders and associated comorbidities can have an impact on the pregnancy itself, the fetus, and the mother. It has been found that mothers experiencing anxiety symptoms during pregnancy often suffer from depressive symptoms, substance use, anemia, and decreased use of prenatal vitamins. Experiencing symptoms of anxiety while parenting may lead to adverse effects for their children such as changes in cognitive development, decreased promotion of psychological independence, behavioral and/or emotional problems, and subsequent development of an anxiety disorder in the child. Screening for the presence of anxiety symptoms should be done before, after, and throughout pregnancy, and should especially be screened for postpartum. In patients who are pregnant, non-pharmacological therapies for anxiety should be used as first-line treatments. During pregnancy, Selective Serotonin Reuptake Inhibitors (SSRIs) can be recommended as a pharmacological treatment for anxiety disorders, after non-pharmacological techniques and treatments have been tried. The choice of SSRI may depend on the specific anxiety disorder that has been diagnosed. However, citalopram, escitalopram, and sertraline are the preferred agents if treatment is initiated during the pregnancy. If an SSRI was already being taken for an anxiety disorder before becoming pregnant, the same SSRI can be continued throughout the pregnancy at the same dose. SNRIs may also be considered in pregnancy, however, there is limited data on their use during pregnancy. SSRI use during pregnancy has not been associated with an increased risk of general congenital malformations and major congenital malformations in infants, with the exception of paroxetine. Paroxetine should be avoided during pregnancy, as its use has been linked with a risk of congenital cardiac malformations in infants.

RATIONALE:

Correct Answer:

- **Paroxetine** - Paroxetine should be avoided in pregnancy due to the risk of congenital cardiac malformations in infants.

Incorrect Answers:

- **Citalopram, Escitalopram, and Sertraline** - Citalopram, escitalopram, and sertraline are the preferred agents if GAD treatment is initiated during pregnancy.

TAKEAWAY/KEY POINTS:

Citalopram, escitalopram, and sertraline are the preferred agents if GAD treatment is initiated during pregnancy. SSRIs are generally safe options in pregnancy, however, paroxetine should be avoided in pregnancy due to the risk of congenital cardiac malformations in infants.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress, and obsessive-compulsive disorders. *BMC Psychiatry*. 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Paroxetine

Question 6

ID: 50044

Correct

Flag question

Send Feedback

A physician at your clinic would like to discuss the care plan for a mutual patient, DM. DM is a 26-year-old woman and MBA student who was diagnosed with Generalized Anxiety Disorder (GAD) 6 years ago. She often struggles with uncontrollable worries about her school and work responsibilities, especially when faced with major deadlines. She has tried multiple first-line antidepressant treatment options but these have not managed her symptoms as well as she hoped. DM's physician would now like to start buspirone.

Which of the following statements is **FALSE** regarding buspirone therapy for GAD?

Select one:

- It has a high abuse potential compared to benzodiazepines ✔ *Rose Wang (ID:113212) this answer is correct. Buspirone has low abuse potential when compared to benzodiazepines.*
- It has a slow onset of action compared to benzodiazepines ✖
- Buspirone should not be used on an as-needed basis (i.e. PRN) ✖
- Buspirone has a high potential for drug interactions ✖

Correct

Marks for this submission: 1.00/1.00.

TOPIC: Anxiety and Related Disorders

LEARNING OBJECTIVE:

To understand the properties of buspirone and its place in anxiety therapy.

BACKGROUND:

An anxiety disorder is defined as persistent, severe feelings of anxiety that lead to irrational fears. These feelings can hinder a person's day-to-day functioning. There are different types of anxiety disorders, including generalized anxiety disorder, social anxiety disorder, post-traumatic stress disorder, obsessive-compulsive disorder, and panic disorder. The GABA receptors theorized to be involved in the pathogenesis of anxiety disorders can be classified under two major families: GABA-A and GABA-B. The GABA-A is the receptor responsible for producing symptoms of anxiety, while the GABA-B receptor is thought to be involved with the process of GABA release in the body. GABA is the main inhibitory neurotransmitter of the central nervous system which binds to both of these receptors. When GABA binds to GABA-A, there is decreased neuronal excitability, reduced anxiety, and increased sedation that enables better sleep. Although the specific role of the GABA receptors in anxiety disorders has not been established, it is believed that as a result of environmental (e.g. chronic stress) and hormonal changes, the number of GABA-A receptors and how they function can affect how they respond to stimuli. Benzodiazepines (BZDs) act on this GABA-receptor mechanism by increasing the effects of GABA on its receptors, leading to anxiolytic, hypnotic, and anticonvulsive effects. Another indicated pharmacotherapy option for anxiety is buspirone. Buspirone is an anxiolytic whose mechanism of action is not yet fully understood but it has been found to have similar efficacy to BZDs. Buspirone acts as a partial agonist at specific serotonin receptor sites and acts as a partial agonist at D2 receptors in the brain. Buspirone has no effect on the GABA system and therefore has a lower potential for abuse compared to BZDs. It is also less sedating and has a lower risk of withdrawal symptoms when compared to BZDs. Similar to antidepressants, buspirone has a slow onset of action (2-4 weeks for maximal benefit), and therefore a short course of BZDs may be necessary to manage symptoms until the onset of action. Buspirone must also be dosed multiple times a day (often BID-TID), and therefore this may be a disadvantage for some patients. Its side effects include dizziness, fatigue, headache, restlessness, and blurred vision, among others. In terms of drug interactions, buspirone is metabolized by CYP3A4 so it must be used with caution with medications that may alter its metabolism. It should also not be used concurrently with MAOIs due to the risk of serotonin syndrome. Buspirone is indicated as a second-line agent in the treatment of generalized anxiety disorder.

RATIONALE:

Correct Answer:

- **It has a high abuse potential compared to benzodiazepines** - Buspirone has low abuse potential when compared to benzodiazepines because it does not act on the GABA system.

Incorrect Answers:

- **It has a slow onset of action compared to benzodiazepines** - Buspirone indeed has a slow onset of action, typically taking 2-4 weeks to reach maximal efficacy, unlike benzodiazepines which act immediately.
- **Buspirone should not be used on an as-needed basis (i.e. PRN)** - Buspirone requires regular dosing (often BID-TID) and is not suitable for PRN (as needed) use.
- **Buspirone has a high potential for drug interactions** - Buspirone is metabolized by the CYP3A4 enzyme, requiring caution when used with other medications that might alter its metabolism.

TAKEAWAY/KEY POINTS:

Buspirone is indicated for generalized anxiety disorder, has a slow onset of action, must be dosed multiple times a day, and has the potential for many drug interactions. Buspirone does NOT have a higher abuse potential than benzodiazepines as it does not act on the GABA system.

REFERENCE:

[1] RxMed: Pharmaceutical Information - BUSPAR.
http://www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20(General%20Monographs-%20B)/BUSPAR.html

[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: It has a high abuse potential compared to benzodiazepines

Question 7

ID: 55828

Incorrect

Flag question

Send Feedback

JS is a 29-year-old male who just received a job offer for an exciting new position at a large marketing company. However, JS learned that he will need to host weekly seminars for his colleagues, and he has struggled with stage fright his entire life. When presenting in front of an audience, JS feels extremely nervous, his hands begin to shake, and he stumbles over his words. He is seeking advice on what can be done to help him host these presentations so he can excel in his new job.

Which of the following treatment options would be **LEAST** appropriate to recommend for JS?

Select one:

- Pregabalin ✖ *Rose Wang (ID:113212) this answer is incorrect. Pregabalin is a first-line pharmacological treatment option for Social Anxiety Disorder (SAD).*
- Escitalopram ✖
- Propranolol ✖
- Bisoprolol ✔

Incorrect

Marks for this submission: 0.00/1.00.

TOPIC: Anxiety and related disorders

LEARNING OBJECTIVE:

To understand the treatment options in performance-only social anxiety disorder.

BACKGROUND:

Social Anxiety Disorder (SAD), also known as Social Phobia (SP), is one of the most common anxiety disorders, with a lifetime prevalence of approximately 8-12% among the international general population. The key features of SP include marked, excessive, or unrealistic fear or anxiety about social situations in which there is possible exposure to judgement by others and active avoidance of feared situations. If the fear is restricted to speaking or performing in public, the disorder should be specified as "performance only". SP can have a negative impact on daily functioning, including in educational and occupational environments, and can place economic burdens on individuals and society in terms of missed work days and health care costs. Patients with SP are also at an increased risk of developing a comorbid psychiatric disorder such as Major Depressive Disorder, other anxiety and related disorders, avoidant personality disorder, body dysmorphic disorder, substance use disorder, Attention Deficit Hyperactivity Disorder, and schizophrenia. Cognitive Behavioural Therapy (CBT) administered in group or individual formats is considered to be the gold-standard non-pharmacological treatment in SAD. First-line pharmacological treatments include escitalopram, fluvoxamine, paroxetine, sertraline, venlafaxine, and pregabalin. Pregabalin can be used as a treatment for SAD only if it is given in higher doses which may cause significant side effects such as drowsiness which can impair daily functioning. Pregabalin is not commonly used as other more suitable first-line agents are available. Second-line pharmacological treatments include alprazolam, clonazepam, bromazepam, citalopram, gabapentin, and phenelzine. Beta-blockers are not generally recommended in the treatment of SAD. However, low doses of propranolol or atenolol have successfully been shown to relieve anxiety caused by performance situations such as public speaking if taken 30 minutes before the event in some situations.

RATIONALE:

Correct Answer:

- **Propranolol** - Propranolol has limited evidence for relieving anxiety associated with performance situations, not bisoprolol.

Incorrect Answers:

- **Pregabalin** - Pregabalin is a first-line pharmacological treatment option for Social Anxiety Disorder (SAD).
- **Escitalopram** - Escitalopram is a first-line pharmacological treatment option for Social Anxiety Disorder (SAD).
- **Beta-blockers** - There is little evidence for the use of beta-blockers in the use of relieving anxiety associated with performance situations. However, propranolol may be tried based on some clinical evidence.

TAKEAWAY/KEY POINTS:

First-line treatment options for SAD include all SSRIs (except fluoxetine and potentially, citalopram), venlafaxine, and pregabalin. Propranolol is the beta-blocker with the most evidence for relieving anxiety associated specifically with performance situations.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. *BMC Psychiatry*. 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca

Pharmacists Association. https://myrx.ca.

The correct answer is: Bisoprolol

Question 8
ID: 50048
Incorrect
Flag question
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SY is a 36-year-old female with Generalized Anxiety Disorder (GAD). She started taking sertraline 25 mg PO daily 7 weeks ago and has been experiencing severe nausea, even when she takes it with food. She is not on any other medications, has no allergies and has no other medical conditions.

What is the best recommendation for SY?

Select one:

- Nausea is a common side effect of sertraline that will decrease over time, SY should continue her current regimen while monitoring for side effects ✖
- Decrease the dose of sertraline and continue monitoring side effects ✖
- Slowly taper off sertraline while gradually initiating another first-line medication option ✖

  Rose Wang (ID:113212) this answer is incorrect. SY is on a dose of 25mg (low dose) so a cross-taper is unnecessary.
- Stop sertraline now and initiate a different first-line medication option ✔

Incorrect
Marks for this submission: 0.00/1.00.

TOPIC: Anxiety and related disorders

LEARNING OBJECTIVE:

To understand how to manage medications that are not tolerated.

BACKGROUND:

In general, patients with anxiety disorders who have started drug therapy should be started on the lowest dose possible, then the dose should be titrated to efficacy. Patients on anxiety medications should be monitored for adverse effects and treatment efficacy. Follow-up monitoring, after the dose is stabilized, should occur every one to two weeks for the first six weeks and then every four weeks thereafter. During this time, persistent and bothersome side effects such as sexual dysfunction and weight gain may be observed. Closer monitoring may be required in special populations such as young children, elderly patients, and patients who are pregnant. It is important to counsel patients on the onset of symptom relief and potential side effects when initiating pharmacological treatments. It is common to experience a delay of about two to eight weeks before experiencing any kind of anxiety symptom relief. Therefore, trials of 6-8 weeks are recommended when initiating an SSRI or Serotonin-Norepinephrine Reuptake Inhibitor (SNRI) in order to properly assess for symptom relief before continuing for a longer period. For Selective Serotonin Reuptake Inhibitors (SSRIs), it is also common to experience side effects such as headache, irritability, drowsiness, and gastrointestinal (GI) upset for the first two weeks of treatment. However, these side effects are normally transient and should decrease after two weeks. If a patient has not experienced any relief during the trial period, a switch to another first-line SSRI or SNRI is recommended. If there is partial relief during the trial period, the dose may be increased or adjuvant therapy may be recommended. If a chosen pharmacological treatment is effective, the patient should continue the treatment for 1 to 2 years with proper monitoring. Each therapy is individualized and is tailored depending on the patient's response to treatment. Ensuring that the patient is aware of treatment timelines and expectations moving forward can increase patient adherence to therapy. Depending on the dose of the drug, patients who have used antidepressants for a minimum of 6 weeks are at risk of antidepressant discontinuation syndrome if the antidepressant is abruptly discontinued. This discontinuation syndrome can present with symptoms such as flu-like symptoms, insomnia, nausea, imbalance, sensory disturbances, and hyperarousal. Patients should be advised of these potential symptoms before initiating treatment. If antidepressants are used for less than 6 weeks, they may be abruptly discontinued.

RATIONALE:

Correct Answer:

- **Stop sertraline now and initiate a different first-line medication option** - As SY is on a low dose of sertraline, it can be stopped and a new drug can be started the next day.

Incorrect Answers:

- **Nausea is a common side effect of sertraline that will decrease over time, SY should continue her current regimen while monitoring for side effects** - Gastrointestinal (GI) side effects typically subside after 2 weeks of therapy. SY has been taking sertraline for 7 weeks so the medication is not tolerated.
- **Decrease the dose of sertraline and continue monitoring side effects** - SY is on the lowest therapeutic dose of sertraline and decreasing the dose further will not provide any benefit for her GAD.
- **Slowly taper off sertraline while gradually initiating another first-line medication option** - SY is on a dose of 25mg (low dose) so a cross-taper is unnecessary.

TAKEAWAY/KEY POINTS:

A trial of 6-8 is recommended for SSRIs and SNRIs to assess for tolerability and efficacy of the treatment of anxiety disorders. If one first-line pharmacologic option is not tolerated by the patient, it is recommended to switch to an alternative first-line treatment option. Depending on the dose of the medication, a cross-taper may be required to avoid withdrawal symptoms.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. *BMC Psychiatry.* 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1. [2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Stop sertraline now and initiate a different first-line medication option

Question 9

ID: 50098

Correct

Flag question

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THE NEXT TWO QUESTIONS INCLUSIVE REFER TO THE FOLLOWING CASE:

DC is a 44-year-old male who has been having distressing dreams for the past two months. Two months ago, he was driving and witnessed a car accident. DC was first on the scene and he unfortunately found one of the drivers dead. DC's distressing dreams have made it hard for DC to sleep and have led to decreased productivity at work, and increased sick days from work. DC works as an insurance claims adjustor. His past medical history is significant for Type 1 Diabetes and he uses an insulin pump to manage his blood sugars. He does not use any other medications; however, he drinks 3-4 alcoholic drinks per week. DC's physician has diagnosed DC with Post Traumatic Stress Disorder (PTSD) and is wondering which medication to prescribe for DC.

Which of the following is an appropriate first-line option for DC?

Select one:

- Sertraline ✔ *Rose Wang (ID:113212) this answer is correct. Sertraline is an appropriate first-line option for DC.*
- Duloxetine ✖
- Vortioxetine ✖
- Mirtazapine ✖

Correct

Marks for this submission: 1.00/1.00.

TOPIC: Anxiety and Related Disorders

LEARNING OBJECTIVE:

To recognize the first-line treatments for Post Traumatic Stress Disorder (PTSD).

BACKGROUND:

Summary of Treatments for Anxiety Disorders

Type of Anxiety	First-line Treatment	Second-line Treatment
PD	Citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine, sertraline, venlafaxine	Imipramine, clomipramine, mirtazapine, alprazolam, clonazepam, diazepam, lorazepam
SAD	Escitalopram, fluvoxamine, paroxetine, sertraline, venlafaxine, pregabalin	Alprazolam, clonazepam, bromazepam, citalopram, gabapentin, phenelzine
OCD	Escitalopram, fluoxetine, fluvoxamine, paroxetine, sertraline	Citalopram, clomipramine, mirtazapine, venlafaxine
PTSD	Fluoxetine, paroxetine, sertraline, venlafaxine	Fluvoxamine, mirtazapine, phenelzine
GAD	Escitalopram, paroxetine, sertraline, venlafaxine, duloxetine, pregabalin, agomelatine	Alprazolam, bromazepam, lorazepam, diazepam, bupropion, buspirone, hydroxyzine, imipramine, Quetiapine XR, Vortioxetine

*Note: benzodiazepines should be used short-term while other medications are waiting to take effect.

RATIONALE:

Correct Answer:

- **Sertraline** - Sertraline is an appropriate first-line option for PTSD.

Incorrect Answers:

- **Duloxetine** - Duloxetine is not a first-line option for the treatment of PTSD.
- **Vortioxetine** - Vortioxetine is not a first-line option for the treatment of PTSD.
- **Mirtazipine** - Mirtazipine is not a first-line option for the treatment of PTSD.

TAKEAWAY/KEY POINTS:

First-line drug therapy agents for PTSD are fluoxetine, paroxetine, sertraline, venlafaxine.

REFERENCES:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress, and obsessive-compulsive disorders. *BMC Psychiatry.* 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.
[3] Richardson J and Marlborough M. Post Traumatic Stress Disorder. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Sertraline

Question 10
ID: 50105
Incorrect
Flag question
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DC has been on sertraline 25 mg daily for three days now and his dreams have not gone away. DC is very concerned and is looking for a recommendation to help quickly eliminate his distressing dreams.

Which of the following is an appropriate recommendation for DC?

Select one:

- Increase the dose of sertraline ✖ — *Rose Wang (ID: 113212) this answer is incorrect. Increasing the dose of sertraline is unlikely to provide immediate relief from DC's distressing dreams.*
- Switch sertraline to fluoxetine ✖
- Add venlafaxine to sertraline therapy ✖
- Add lorazepam to sertraline therapy ✔

Incorrect
Marks for this submission: 0.00/1.00.

TOPIC: Anxiety and Related Disorders

LEARNING OBJECTIVE:

To recognize how to quickly treat Post Traumatic Stress Disorder (PTSD).

BACKGROUND:

Note: benzodiazepines should be used short-term for immediate relief of symptoms while other medications (e.g. selective serotonin reuptake inhibitors (SSRIs) and serotonin and norepinephrine reuptake inhibitors (SNRIs)) are waiting to take effect. It can take 4 - 8 weeks for medications such as SSRIs or SNRIs to work. If there is no improvement in anxiety or anxiety symptoms the dose of the medication can be increased or if at the maximum dose, switched to a different medication.

RATIONALE:

Correct Answer:

- **Add lorazepam to sertraline therapy** - Benzodiazepines can be used short-term for immediate relief of DC's distressing dreams while selective serotonin reuptake inhibitors are waiting to take effect.

Incorrect Answers:

- **Increasing the dose of sertraline** - Increasing the dose of sertraline is unlikely to provide immediate relief from DC's distressing dreams.
- **Sertraline or fluoxetine** - It can take a few weeks for sertraline or fluoxetine to be effective, neither would provide immediate relief from DC's distressing dreams.
- **Combination of SSRIs and SNRIs** - Selective serotonin reuptake inhibitors should not be used in combination with serotonin and norepinephrine reuptake inhibitors.

TAKEAWAY/KEY POINTS:

Benzodiazepines should be used short-term for immediate relief of symptoms while other medications (e.g. selective serotonin reuptake inhibitors (SSRIs) and serotonin and norepinephrine reuptake inhibitors (SNRIs)) are waiting to take effect.

REFERENCE:

[1] Katzman MA, Bleau P, Blier P, Chokka P, Kjernisted K, Van Ameringen M. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress, and obsessive-compulsive disorders. *BMC Psychiatry.* 2014;14(1):1-83. doi:10.1186/1471-244X-14-S1-S1. http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-S1-S1.
[2] Dion N and Filteau M. Anxiety Disorders. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.
[3] Richardson J and Marlborough M. Post Traumatic Stress Disorder. In: Compendium of Therapeutic Choices. Ottawa, ON: Canadian Pharmacists Association. https://myrxtx.ca.

The correct answer is: Add lorazepam to sertraline therapy